



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 23, 2014

Ms. Sherry Barrett
U.S. Fish and Wildlife Service
Southwestern Regional Office
Mexican Wolf Recovery Program
New Mexico Ecological Services Field Office
2105 Osuna Rd. NE
Albuquerque, New Mexico 87113

Subject: Draft Environmental Impact Statement (DEIS) for the Proposed Revision to the
Nonessential Experimental Population of the Mexican Wolf (*Canis Lupus Baileyi*),
Arizona and New Mexico (CEQ # 20140201)

Dear Ms. Barrett:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

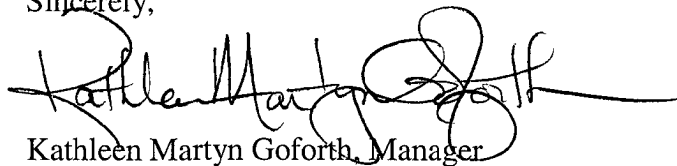
The FWS is proposing to revise the regulations established in the 1998 Final Rule for the nonessential experimental population of the Mexican wolf to allow the release of the wolf into additional areas and allow the wolf to disperse south of Interstate-10 to the U.S. Mexico border, thus expanding the Mexican Wolf Experimental Population Area (MWEPA). The Proposed Action would also extend the authority of the Mexican Wolf Recovery Program's Section 10(a)(1)(A) research and recovery permit to areas that are outside of the MWEPA to allow wolf removal, should they disperse to establish territories in areas outside of the MWEPA, and to alter the "take" regulations to permit domestic animal owners to take Mexican wolves in certain situations.

Based on our review, we have rated the DEIS as Lack of Objections (LO) (see enclosed "Summary of Rating Definitions"). While we recognize the benefits of the Proposed Action, we recommend that the impact analysis be refined in the FEIS to more clearly distinguish impacts among the alternatives. We also recommend that the impacts of climate change on habitat and prey be disclosed in the analysis and that the adaptive capacity that the alternatives would offer the Mexican wolf in a changing climate be evaluated in the impact assessment.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: ENF-4-2). If you have any questions, please

contact me at (415) 972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathleen Martyn Goforth', written over the printed name.

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosure: Summary of EPA Rating Definitions
 EPA's Detailed Comments

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Alternatives Analysis/Impacts to the Mexican Wolf

The impact assessment does not clearly differentiate between alternatives¹. The table entitled *Summary of the Environmental Consequences by Alternative* indicates identical impacts for all alternatives on all resources with one exception – that Alternative 3 has higher environmental justice impacts than do Alternatives 1, 2 and 4. It appears that further discussion of potential impacts could help differentiate the alternatives and provide more useful information to the decision-maker and public. In particular, the analysis would benefit from greater refinement of the evaluation of impacts to the Mexican wolf population. For example, although the text provides some differences in the 12-year population projections (287 wolves for Alternatives 1 and 2, and 318 wolves for Alternative 3 (Ch. 4, p. 20)), the comparison table indicates only that all alternatives would result in significant beneficial impacts to the wolf, without making the difference in effects explicit.

According to the DEIS, Alternatives 1 and 2 would allow greater take along with the expansion of the Mexican Wolf Experimental Population Area (MWEPA). In evaluating the impacts of this take to the Mexican wolf, the predicted annual population growth was adjusted from 11% to 10% for Alternatives 1 and 2 (App. F, p. 5). These adjustments for increased take appear to be based primarily on the number of dog injuries or mortalities that have occurred from 1998 to 2013. The potential for additional take from certain land uses that may be more prevalent in the expansion area south of I-10 to the US Mexico border does not appear to have been considered. The DEIS, in Appendix F, indicates that one of the most significant differences the experimental population would experience, due to project implementation, would be exposure to a matrix of suitable and unsuitable habitat, as opposed to the current composition of 87% suitable habitat on primarily National Forest land (App. F, p. 1). The analysis concludes that the potential for wolf mortality due to illegal killing, vehicular mortality, or removal due to depredation or nuisance issues is likely to be the same or higher compared to current levels. No discussion is provided to support the derivation of the lower bound, i.e., “same compared to current levels”, in light of the greater proportion of unsuitable habitat in the expansion area. Additional information, such as the history of removals and translocations of wolves that have entered this southern area in the past, and the percentage of this area that is used for cattle ranching, could be useful for the impact discussion.

It is also not clear whether or how the genetic detriments of the Mexican wolf population were factored into the population projections. The population projections of the alternatives indicates that a projected baseline population growth rate of 11% was used, assuming that the Mexican wolf experimental population would exhibit similar growth as the naturally recovering grey wolf populations of northwestern Montana and Wisconsin when these populations were fully protected as endangered species (Appendix F). However, the document does not indicate whether the Montana and Wisconsin wolf populations have the same genetic detriments that the Mexican wolf population experiences. The DEIS explains that the estimated relatedness (population mean kinship) of the Mexican wolf population suggests that, on average, they are as related to one another as outbred full siblings are related to each other. It concludes that at its current population of 83 wolves, the experimental population is considered small, genetically impoverished, and significantly below estimates of viability appearing in the scientific literature (Ch. 1, p. 21).

¹ The Council on Environmental Quality NEPA regulations, state that the EIS “should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public” (40 CFR 1502.14).

Recommendations: Refine the table in section 2.3.6 to more finely distinguish among the differences in impacts among alternatives. We recommend a fuller discussion of how the changes in take regulations would impact the Mexican wolf, especially in new land areas that wolves might transverse that do not contain wolf habitat and, thus, may present cattle as an attractive prey. Validate the appropriateness of using the assumption that the Mexican wolf would exhibit similar growth as do northwestern Montana and Wisconsin wolves in the population projections for the Mexican wolf, and indicate how the genetic impoverishment of the Mexican wolf population is reflected in the population projections.

Evaluating Adaptability to Climate Change

The proposed action does not appear to have factored in potential effects of climate change on the Mexican wolf and its prey. The ability to disperse is part of the adaptive capacity of a species to respond to change, and climate change is shifting the habitat ranges of many species towards more northern latitudes and higher elevations².

The DEIS indicates that the area north of I-40 in Arizona and New Mexico contains extensive suitable habitat for Mexican wolves (Ch 2, p. 7). It also states that observation of reintroduced Mexican wolves suggests that elk is their preferred prey species and constitutes the majority of their diet (Ch 1, p. 22; Ch. 3, p. 17). According to the DEIS, no elk are found in the MWEPA area south of I-10 (Ch 3, p. 22); however, Figure 3-8 indicates that some elk are present north of I-40.

The Proposed Action would expand the areas where the wolves could disperse south of the existing MWEPA (I-10 to the Mexican border) but not to the north. The DEIS indicates that a proposal to allow dispersal north of I-40 was evaluated, but was eliminated from further consideration because it is not practical or feasible in the absence of a complete recovery plan that indicates the most appropriate area for establishment of a metapopulation of Mexican wolves. It is unclear why the absence of a complete recovery plan would preclude allowing dispersal north of I-40 in response to changes in habitat and prey availability, which could occur with climate change.

The DEIS appears to assume that there would be no effects from climate change on the wolf's preferred prey when it states that "*wild ungulate population levels fluctuate in response to winter severity, habitat condition, hunter harvest, predation, and other environmental factors such as drought and wildfires*", and "*under the proposed action and alternatives, we expect these fluctuations to continue as they have in the past*" (Ch 4; p. 84). The DEIS does identify potential climate change effects on livestock, which may result in decreased forage and increased disease. It seems reasonable to anticipate that elk may experience similar effects; however, these are not identified.

Recommendation: We recommend that the adaptive capacity³ of the Mexican wolf be considered in the impact assessment, and that the FEIS clarify why allowing natural dispersal north of I-40 is infeasible and would not meet the objective of improving the effectiveness of the Reintroduction Project in managing the experimental population in the interim until the Recovery Plan can be updated.

² See: <http://www.epa.gov/climatechange/impacts-adaptation/ecosystems.html>

³ Adaptive capacity is defined by the Intergovernmental Panel on Climate change as "the potential, capability, or ability of a system to adjust to climate change, to moderate potential damages, to take advantage of opportunities, or to cope with the consequences"

We recommend that the FEIS discuss the cumulative impacts of climate change on the Mexican wolf and its main prey - the elk -- and compare the adaptive capacity that the Proposed Action and alternatives would enable. Discuss how wolf and elk habitat ranges can be expected to shift under climate change and where the wolf might disperse under such conditions.

We recommend that FWS ensure that climate change adaptability is incorporated into the selected alternative⁴. For example, consider including an adaptive management component that would allow flexibility in FWS' response in the event that monitoring reveals successful establishment of wolves north of I-40 and unacceptable impacts from translocation.

Effects of US/Mexico Border Fence

The DEIS states that expanding the MWEPA south of I-10 to the Mexican border may provide stepping stone habitat and dispersal corridors for wolves dispersing north from Mexico (Ch. 1, p. 32). No mention is made of the border fence constructed by the Department of Homeland Security, Customs and Border Protection. We understand the border fence is not impervious across all of Arizona and New Mexico, and only the pedestrian fence would be a barrier (as opposed to the vehicle fence); however, it seems reasonable to expect that the fence could affect migration patterns and/or success rates, depending on its location relative to wolf populations in Mexico and suitable habitat north of the border. River corridors and drainages can serve as migration pathways for wildlife. EPA reviewed an Environmental Assessment in 2008 that proposed a pedestrian border fence segment in the Tucson sector that spanned the Santa Cruz River near Nogales and 26 other drainages. We are not aware of the status of that proposed fence segment. If a pedestrian fence was constructed, it could provide a barrier to wolf migration from release sites in Sonora, Mexico and should be considered in project planning.

Recommendation: In the FEIS, discuss the extent to which the US/Mexico border fence may inhibit or preclude the migration of wolves from Mexico and how this affects the potential for extension of the MWEPA to the Mexico border to offer a stepping stone habitat.

Additional comments

- Pesticide applications: Expanding the area where a threatened or endangered species is located could affect the application of pesticides in those areas, since pesticide applications in certain geographic areas may be restricted or prohibited to protect endangered and threatened species and their critical habitat. Examples include the application of herbicides to control invasive weed species and the use of rodenticides to kill rodents. This should be disclosed in the FEIS.
- List of preparers: The list of preparers in the DEIS (Ch. 5, p. 1) states only that the EIS was prepared by USFWS staff and their consultants from CJ Seto Support Services. The CEQ NEPA regulations require that the environmental impact statement list the names, together with their qualifications (expertise, experience, professional disciplines), of the persons who were primarily responsible for preparing the environmental impact statement or significant background papers, including basic components of the statement (40 CFR 1502.17).

⁴ A resource to consider is the Climate-Smart Conservation Guide⁴, developed with the participation of both FWS and EPA, Available: http://www.nwf.org/pdf/Climate-Smart-Conservation/NWF-Climate-Smart-Conservation_5-08-14.pdf